



	(1)	(10)	(20)	(30)	(40)
	230	240	250	260	270
	+	+	+	+	+
* CH60_ECOTI_190	IREMLPVLEAV	IREMLPVLEAV	AKAGKPLLI	IAEDVEGEALATLVVNTMRGIV	AKAGKPLLI
* CH60_SALTI_190	IREMLPVLEAV	IREMLPVLEAV	AKAGKPLLI	IAEDVEGEALATLVVNTMRGIV	AKAGKPLLI
* S56371_191	IREMLPVLEAV	IREMLPVLEAV	AKAGKPLLI	IAEDVEGEALATLVVNTMRGIV	AKAGKPLLI
CH60_LEPIN_190	MKDLIHILEKV	MKDLIHILEKV	AKAGKPLVI	ISEVEGEALATLVVNTMRGIV	AKAGKPLVI
S47530_191	IREMLPVLEAV	IREMLPVLEAV	AKAGKPLLI	IAEDVEGEALATLVVNTMRGIV	AKAGKPLLI
* LPNHTPBG_190	IREMLPVLEAV	IREMLPVLEAV	AKAGKPLLI	IAEDVEGEALATLVVNTMRGIV	AKAGKPLLI
* CH60_ACTAC_189	IREMLPVLEAV	IREMLPVLEAV	AKAGKPLLI	IAEDVEGEALATLVVNTMRGIV	AKAGKPLLI
JC4519_191	IREMLPVLEAV	IREMLPVLEAV	AKAGKPLLI	IAEDVEGEALATLVVNTMRGIV	AKAGKPLLI
CH60_BRUAB_191	LOALLPVLEAV	LOALLPVLEAV	AKAGKPLLI	IAEDVEGEALATLVVNTMRGIV	AKAGKPLLI
* CH60_HAEIN_191	IREMLPVLEAV	IREMLPVLEAV	AKAGKPLLI	IAEDVEGEALATLVVNTMRGIV	AKAGKPLLI
# CH60_CAUCR_190	LOPLPVLEAV	LOPLPVLEAV	AKAGKPLLI	IAEDVEGEALATLVVNTMRGIV	AKAGKPLLI
* CH60_AMOPS_190	IRDMSPVLEAV	IRDMSPVLEAV	AKAGKPLLI	IAEDVEGEALATLVVNTMRGIV	AKAGKPLLI
* CH60_HAEDU_191	IREMLPVLEAV	IREMLPVLEAV	AKAGKPLLI	IAEDVEGEALATLVVNTMRGIV	AKAGKPLLI
CH61_RHIME_191	LOMLPVLEAV	LOMLPVLEAV	AKAGKPLLI	IAEDVEGEALATLVVNTMRGIV	AKAGKPLLI
* CH60_LEGMI_190	IRDMSPVLEAV	IRDMSPVLEAV	AKAGKPLLI	IAEDVEGEALATLVVNTMRGIV	AKAGKPLLI
* CH60_YEREN_191	IREMLPVLEAV	IREMLPVLEAV	AKAGKPLLI	IAEDVEGEALATLVVNTMRGIV	AKAGKPLLI
CH63_BRAJA_190	INELLPVLEAV	INELLPVLEAV	AKAGKPLLI	IAEDVEGEALATLVVNTMRGIV	AKAGKPLLI
CH60_PORGI_191	IREMLPVLEAV	IREMLPVLEAV	AKAGKPLLI	IAEDVEGEALATLVVNTMRGIV	AKAGKPLLI
* S52901_191	IREMLPVLEAV	IREMLPVLEAV	AKAGKPLLI	IAEDVEGEALATLVVNTMRGIV	AKAGKPLLI
* S26423_191	IREMLPVLEAV	IREMLPVLEAV	AKAGKPLLI	IAEDVEGEALATLVVNTMRGIV	AKAGKPLLI
RSU373691_191	LOPMVPVLEAV	LOPMVPVLEAV	AKAGKPLLI	IAEDVEGEALATLVVNTMRGIV	AKAGKPLLI
CH62_BRAJA_190	INELLPVLEAV	INELLPVLEAV	AKAGKPLLI	IAEDVEGEALATLVVNTMRGIV	AKAGKPLLI
CH60_ACYPS_191	IREMLPVLEAV	IREMLPVLEAV	AKAGKPLLI	IAEDVEGEALATLVVNTMRGIV	AKAGKPLLI
CH63_RHIME_191	LOMLPVLEAV	LOMLPVLEAV	AKAGKPLLI	IAEDVEGEALATLVVNTMRGIV	AKAGKPLLI
* YEPHSPCRPI_191	IREMLPVLEAV	IREMLPVLEAV	AKAGKPLLI	IAEDVEGEALATLVVNTMRGIV	AKAGKPLLI
CH60_BORPE_191	IRDLVPVLEAV	IRDLVPVLEAV	AKSSRPPLLI	IAEDVEGEALATLVVNTMRGIV	AKSSRPPLLI

FIG. 9(a)

BRUGRO1_189 LOALLPVLEAV.....VQTSKPLIIAEDVEGERLATLVNKLRGGL
*CH60_PSEAE_191 IREMLPVLEAV.....AKAGRPLIIAEDVEGEALATLVNKNMRGIV
CH60_BARBA_190 LOSLLPVLEAV.....AOSKPLIIAEDVEGEALATLVNKLRGGL
BAOBB63A_191 LOSLLPVLEAV.....VOSKPLIIAEDVEGEALATLVNKLRGGL
CH60_BACST_189 IOEILPVLEOV.....VOQGRPLIIAEDVEGEALATLVNKLRGTF
CH60_BACSU_188 IOEILPVLEOV.....VOQKPLIIAEDVEGEALATLVNKLRGTF
CH60_AGRTU_191 LOAMLPVLEAV.....VOTKPLVIIAEDVEGERLATLVNKLRGGL
B36917_191 LOAMLPVLEAV.....VOTKPLVIIAEDVEGERLATLVNKLRGGL
*PAUI7072_191 IREMLPVLEAV.....AKAGRPLIIAEDVEGEALATLVNKNMRGIV
CH60_RHILV_191 LOSMLPVLEAV.....VOTKPLIIAEDVEGEALATLVNKLRGGL
CH61_STRCO_187 IADLLPLEKVI.....QANASKPLIIAEDLEGEALSTLVNKRIGTF
CH60_COXBU_191 IRELIPLENV.....AKSGRPLIIAEDIEGEALATLVNKNIRGVV
CH62_RHIME_191 LOAMIPILESV.....IOSKPLIIAEDVEGEALATLVNKLRLASL
PSEGR0ESL1_191 IREMLPVLEAV.....AKAGRPLIIAEDVEGEALATLVNKNMRGIV
CH61_SYNY3_189 VODLVPILEOV.....ARQKPLIIAEDIEKEALATLVNKLRLGVL
CH60_CLOTM_189 IODILPLEQI.....VOQKPLVIIAEDVEGEALATLVNKLRGTF
#CH60_PSEPU_191 SRAASTERA.....SAGRPLIIAEDVEGEALATLVNKNMRGIV
CH60_SYNF7_190 VQDLVPLEOV.....ARAGRPLVIIAEDIEKEALATLVNKLRLGVL
CH60_GALSU_190 VQODLPLEQI.....AKTNKPLIIAEDIEKEALATLVNKLRLGIL
CH60_ZYMO_190 LOSILPILESV.....VOSGRPLIIAEDIEGEALATLVNKLRLGGL
JC2564_191 LOSILPILESV.....VOSGRPLIIAEDIEGEALATLVNKNLRGGL
*CH60_CHRVI_191 IRDLLPVLEGV.....VOSGRPLIIAEDIEGEALATLVNKNLRGGL
CH60_MYCTU_189 VKDLLPLEKV.....AKAGKPLIIAEDVEGEALATLVNNTIRGIV
CH60_NEIME_191 IRDLLPVLEKV.....IGAKRPLIIAEDVEGEALSTLVNKRIGTF
CH60_TREPA_189 MKDLLPLEKET.....AKASRPLIIAENVEGEALATLVNKNIRGIL
CH60_HELPY_190 MKDILPLEKET.....AOTGRPLIIAEDVEGEALATLVNNSLRGTL
CH60_NEIGO_191 IRDLLPVLEOV.....MKEKPLIIAEDIEGEALSTLVNKNLRGVL
CH61_CUCMA_222 INAVVKLELA.....AKASRPLIIAEDVEGEALATLVNKNIRGVL
CH60_MYCPA_189 VKDLLPLEKV.....LKKORPLIIAEDVEGEALATLVNKNIRGTF
MPU15989_230 VKDLLPLEKV.....IOAGKPLIIAEDVEGEALSTLVNKNIRGTF
IOAGKPLIIAEDVEGEALSTLVNKNIRGTF

FIG. 9(b)



S26582_224 MHAVVKVLEMA.....LKKOKPLLIIVAEDEVESEALGTLIINKLRAGI
S40247_191 IRDLLPVLEOV.....AKASRPLLIIAEDEVEGEALATLVVNNIRGVL
CH60_CLOAB_189 IOEILPBLEOI.....VOQSKLLIIADDEVEGEALATLVVNNKLRGT
CH60_NEIFL_191 IRDLLPVLEOV.....AKASRPLLIIAEDEVEGEALATLVVNNIRGIL
*CH60_LEGPN_190 IREMLSVLEGV.....AKSGRPLLIIAEDEVEGEALATLVVNNMRGIV
CH62_CUCMA_222 INSIVKVLELA.....LKRORPLLIIVSEDEVEDALATLVNNKLRAGI
CHTGROESLI_191 IKDFLPVLOOV.....AESGRPLIIAEDEGEALATLVNNRIRGGF
S40172_64 IKDFLPVLOOV.....AESGRPLIIAEDEGEALATLVNNRIRAGF
SYGROEL2_189 IODLIPTLERV.....ARSGRPVITIAEDVEGEALATLVNNKLRGVL
CH60_CHLPS_191 IKDFLPVLOOV.....AESGRPLIIAEDEGEALATLVNNRIRAGF
CH62_STRAL_188 VKDLLPBLEKV.....MOSGRPLIIAEDEVEGEALSTLVVNNKIRGT
CH62_MYCLE_189 VKDLLPBLEKV.....IOAGKSLIIAEDEVEGEALSTLVVNNKIRGT
MSGANTM_236 VKDLLPBLEKV.....IOAGKSLIIAEDEVEGEALSTLVVNNKIRGT
CH60_BORBU_190 IKELLPVLEKV.....LGTNKPPLIIAEDEGEALATLVNNKIRGT
S26583_224 MHAVVKVLEMA.....LKKORPLIIAEDEVESEALGTLIINKLRAGI
A49209_190 IKELLPVLEKV.....LGTNKPPLIIAEDEGEALATLVNNKLRGT
MZECPN60B_224 MHAVVKVLEMA.....LKKORPLIIAEDEVESEALGTLIINKLRAGI
CH60_THERP_189 IOELLPALEOV.....VOQGRPLIIAEDEVEGEALATLVNNKLRGT
CH60_STAPR_188 FODILPBLEOV.....VOASRPILIIAEDEVEGEALATLVNNKLRGT
CH60_LACIA_189 IOEILPBLEOI.....LKTNRPLIIADDDVGEALPTLVNNKIRGT
CH61_STRAL_188 IODLLPBLEKVI.....QAGSKPLIIAEDEVEGEALSTLVNNKIRGT
CH60_CHLPN_191 IKDFLPVLOOV.....AESGRPLIIAEDEGEALATLVNNRIRAGF
MZECPN60A_224 MHAVVKVLEMA.....LKKOKPLLIIVAEDEVESEALGTLIINKLRAGI
HECHSPAB1_190 MKDILPBLEKT.....MKEGRPLIIAEDEGEALPTLVNNKLRGVL
CH60_ARATH_221 INSIVKVLELA.....LKRORPLLIIVSEDEVEDALATLVNNKLRAGI
CH60_MAIZE_224 MHAVVKVLEMA.....LKKOKPLLIIVAEDEVESEALGTLIINKLRAGI
CH60_CHLTR_190 IKDFLPVLOOV.....AESGRPLIIAEDEGEALATLVNNRIRGGF
CH60_STAU_189 FODILPBLEOV.....VOQNRPLIIAEDEVEGEALATLVNNKLRGT
CH60_CLOPE_189 IODLLPBLEOI.....VOAGKRLIIADDDIEGEAMTTLVNNKLRGT
HS60_YEAST_212 IODILPALEIS.....NOSRAPLLIIAEDEVEGEALATLVNNKLRGT
CH60_PYRSA_217 VOELVPILHELI.....SKTSRPPLIIAEDEVEKEALATLVNNKLRGIV

FIG. 9(c)



CH60_EHRCH_191	IQPILPILENV.....	ARSGRPLIIAEDVEGEALSTLVNKLKRGSL
CHTGR0E1_191	IKDFLPVLOOV.....	AESGRPLIIAEDIVGEALATLVNKRIRGGE
CH60_THETH_188	VRELLPILLEV.....	AQTGKPLIIAEDVEGEALATLVNKLKRGTL
TAU294831_189	VRELLPILLEV.....	ROTKRPLIIAEDVEGEALATLVNKLKRGTL
CH60_RICTS_190	VOPLVPVLEAV.....	AHTGKPLVLIADVDGEALATLVNKLKRGSI
SYCCPNC_189	IAELVPVLEAV.....	ARAGRPLIIAEDIEGEALATLVNKLKRGVL
CPU308211_190	VODLVPVLEOV.....	ABARKPLFIIAEDIEKEALATLVNKLKRGNL
CH61_MYCLE_189	LEPLLPMLEKV.....	TESGKPLIIVAEDEGEALATLVNKSIRKTL
PSU21139_239	ARDLINILEDA.....	IRSGFPVIVIAEDIEGEALATLVNKLKRGSL
CH60_COWRU_191	IQPLLPILENI.....	ARSGRPLIIAEDVEGEALSTLVNKLKRGSL
RUBB_BRANA_245	ARDLVGVLEDA.....	IRGGYPILIIAEDIEGEALATLVNKLKRGTL
SCCPN60_144	ARDLINVLEEA.....	IRGQYPILIIAEDIEGEALATLVNKLKRGSL
CH60_EHRI_153	IQPMVPLEETI.....	VRSNRAVVI AEDVEGEALTSVLSKMRGSL
RUBB_ARATH_245	ARDLVGVLEDA.....	IRGGYPILIIAEDIEGEALATLVNKLKRGTL
ATU49357_235	IKDIIPILEKT.....	TOLRAPPLIIAEDVTGEALATLVNKLKRGVL
RUB1_BRANA_195	IKDIIPILEKT.....	TOLRAPPLIIAEDVTGEALATLVNKLKRGVL
CH62_SYNY3_189	IAELVPVLEAV.....	ABAGRPLIIAEDIEGEALATLVNKLKRGVL
RUBA_RICCO_178	IKDIIPILEKT.....	TOLRAPPLIIAEDVTGEALATLVNKLKRGVL
CH60_ODOSI_190	VQODLPPILEQI.....	TKTKRPLIIAEDVEKEALATLVNKLKRGIV
PSU21105_236	IKDIIPILEKT.....	TOLRAPPLIISEDITGEALATLVNKLKRGIL
CH60_BRANA_224	LNSMVKVLELA.....	LKSORSLLIYAADLES DALAVLIINKLRAGI
PMSAR62_105	IADLVPVLETV.....	OKSSSPLVILAEVDGEALATLVNKLKRGVL
RUB2_BRANA_234	IKDIIPILEKT.....	TOLRAPPLIIAEDVTGEALATLVNKLKRGVL
CRECPN1A_75	ARDIITILESA.....	IRGNYPLLMAEEVEOEALATLVNKLKRGTL
P60_CRIGR_215	VQIVPALEIA.....	NAHRKPLVITAEVDGEALSTLVNKLKRGVL
CRECPN1B_224	IRDIIPILEOV.....	TRLNAPPLIIAEDVSGEALATLVNKLKRGVL
RUBA_WHEAT_191	IKELIIPLEOT.....	TOLRCPLFI AEDITGEALATLVNKLKRGIT
B47292_189	LPDLLPILLEKV.....	AGTGKPLIIVAEDEVEGEALATLVNKLKRGIT
CELHSP60CP_206	VQDIVPALEIA.....	NKLARPPLVITAEVDGEALSTLVNKLKRGVL
P60_HUMAN_215	IQSIVPALEIA.....	NAHRKPLVITAEVDGEALSTLVNKLKRGVL
P60_MOUSE_215	VQIVPALEIA.....	NAHRKPLVITAEVDGEALSTLVNKLKRGVL

FIG. 9(d)



P60 RAT 215 VQSVVPALTEIA.....NAHRKPLVIAEDVDGEALSTLVNRLKVG
A41931 215 VQSVVPALTEIA.....NAHRKPLVIAEDVDGEALSTLVNRLKVG
MMHSP60A 197 VQSVVPALTEIA.....NAHRKPLVIAEDVDGEALSTLVNRLKVG
CH63 HELVI 218 ASQVVPALTEIA.....NSQKKPLVIAEDVDGEALSTLVNRLKVG
EGHSP60GN 205 IQOILPVLEHI.....AKANRPLVIAEDVDGEALSTLVNRLKVG
HS60 SCHPO 222 VQDILPSLEIA.....AQORRPLVIAEDVDGEALSTLVNRLKVG
S61295 198 IHTILPALNHV.....VGTGRPLVIAEDVDGEALSTLVNRLKVG
TRBMTHSP 198 IHTILPVLNHV.....VRSGRPLVIAEDVDGEALSTLVNRLKVG
#ENHCPN60F 142 SQSVVPALLELC.....LKRKPLVVISDTIDGALTTLVNRLKVG
CH60 PLAFG 257 IQSILPILFIFAKNKQPLCIADDESNEVLQTLINKLKGAIKVLCIVTNSKYISADVGLDNLHNHNMSSFD
CH60 MYCGE 189 IKEILPLEGS.....VENGNPLLIVAPDFAEEVVTTLAVNKLRTI
HTOHSPP60X 228 VQDILPALTEAS.....TTLRRPLVIAEDVDGEALSTLVNRLKVG

FIG. 9(e)